

Appl. No. 09/775,715
Reply dated January 22, 2004
Reply to Office Action mailed October 22, 2003

1. Amendments to the Claims:

C1
1.(Previously presented) A system for user behavior based ranking of a document, comprising:

means for determining a feature vector associated with a document, the feature vector comprising weights for certain terms that appear in the document; and

means for modifying the feature vector for the document based on a sample of user actions captured during a search session so that the document is more highly ranked in response to the user actions.

2. (Previously presented) The system of Claim 1 further comprising means for capturing user actions in response to a list of documents produced in response to a query wherein the user actions include selecting a document from the list of documents.

3.(Original) The system of Claim 2 further comprises means for adjusting the weights of the terms in the feature vector that match terms in a query that produced the list of documents so that the ranking of the document is higher in response to the adjustment of the weights.

4.(Previously presented) A method for user behavior based ranking of a document, comprising:

determining a feature vector associated with a document, the feature vector comprising weights for one or more terms that appear in the document; and

modifying the feature vector for the document based on a sample of user actions captured during a query of the document so that the document is more highly ranked in response to the user actions.

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5. (Previously presented) The method of Claim 4 further comprising means for capturing user actions in response to a list of documents produced in response to a query wherein the user actions include selecting a document from the list of documents.

6.(Original) The method of Claim 5, wherein the modifying means further comprises means for adjusting the frequency values of the terms in the feature vector that match terms in a query that produced the list of documents so that the ranking of the document is higher in response to the adjustment of the frequency values.

7.(Previously presented) A system for user behavior based searching of a document based on a query having one or more query terms, comprising:

means for determining a feature vector associated with a document, the feature vector comprising weights for certain terms that appear in the document;

means for modifying the feature vector for the document based on a sample of user actions captured during a query of the document so that the document is more highly ranked in response to the user actions; and

means for returning the same document to another user with the same query at a higher ranking due to the modified feature vector.

8. (Previously presented) The system of Claim 7 further comprising means for capturing user actions in response to a list of documents produced in response to a query wherein the user actions include selecting a document from the list of documents.

9.(Original) The system of Claim 8, wherein the modifying means further comprises means for adjusting the frequency values of the terms in the feature vector that match terms in a query that produced the list of documents so that the ranking of the document is higher in response to the adjustment of the frequency values.

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10. (Previously presented) A method for user behavior based searching of a document based on a query having one or more query terms, comprising:

determining a feature vector associated with a document, the feature vector comprising frequency values for one or more terms that appear in the document;

modifying the feature vector for the document based on a sample of user actions captured during a query of the document so that the document is more highly ranked in response to the user actions; and

returning the same document to another user with the same query at a higher ranking due to the modified feature vector.

11.(Previously presented) The method of Claim 10 further comprising means for capturing user actions in response to a list of documents produced in response to a query wherein the user actions include selecting a document from the list of documents.

12.(Original) The method of Claim 11, wherein the modifying means further comprises means for adjusting the frequency values of the terms in the feature vector that match terms in a query that produced the list of documents so that the ranking of the document is higher in response to the adjustment of the frequency values.

13. (Previously presented) A computer implemented method for user behavior based ranking of a document, the method comprising:

ranking a document based on a feature vector of the document, the feature vector comprising frequency values for one or more terms that appear in the document;

sampling user search behavior; and

updating the feature vector of the document based on the sampled user search behavior so that the rank of the document is changed based on the user sampled user search behavior.

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14. (Previously presented) The method of Claim 13, wherein the sampling further comprises generating a sample of the user behavior wherein the sample of the user behavior further comprises a query feature vector of the terms in a particular query and the feature vector of the one or more documents returned based on the query and viewed by the user.

15. (Previously presented) The method of Claim 14, wherein the sample generating further comprises generating a sample during a sampling frequency.

16. (Previously presented) The method of Claim 13, wherein the updating further comprises combining the feature vector of the document with a feature vector of the query, the feature vector comprising frequency values for one or more terms that appear in the query.

17. (Previously presented) The method of Claim 16, wherein the updating further comprising scaling the query feature vector based on the viewing time of the document by the user during the sampled user behavior to generate a scaled query feature vector.

18. (Previously presented) The method of Claim 17, wherein the scaling further comprises generating a negative scaling factor in response to a short viewing time so that the scaled query feature vector is negative and the feature vector of the document is reduced and the rank of the document is reduced.

19. (Previously presented) The method of Claim 17, wherein the scaling further comprises generating a positive scaling factor in response to a long viewing time so that the scaled query feature vector is positive and the feature vector of the document is increased and the rank of the document is increased.

20. (Previously presented) A computer implemented system for user behavior based ranking of a document, the system comprising one or more computer instructions, the system comprising:

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instructions for ranking a document based on a feature vector of the document, the feature vector comprising frequency values for one or more terms that appear in the document;
instructions for sampling user search behavior; and
instructions for updating the feature vector of the document based on the sampled user search behavior so that the rank of the document is changed based on the user sampled user search behavior.

21. (Previously presented) The system of Claim 20, wherein the sampling further comprises instructions for generating a sample of the user behavior wherein the sample of the user behavior further comprises a query feature vector of the terms in a particular query and the feature vector of the one or more documents returned based on the query and viewed by the user.

22. (Previously presented) The system of Claim 21, wherein the sample generating further comprises instructions for generating a sample during a sampling frequency.

23. (Previously presented) The system of Claim 20, wherein the updating further comprises instructions for combining the feature vector of the document with a feature vector of the query, the feature vector comprising frequency values for one or more terms that appear in the query.

24. (Previously presented) The system of Claim 23, wherein the updating further comprising instructions for scaling the query feature vector based on the viewing time of the document by the user during the sampled user behavior to generate a scaled query feature vector.

25. (Previously presented) The system of Claim 24, wherein the scaling further comprises instructions for generating a negative scaling factor in response to a short viewing time so that the scaled query feature vector is negative and the feature vector of the document is reduced and the rank of the document is reduced.

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26. (Previously presented) The system of Claim 24, wherein the scaling further comprises instructions for generating a positive scaling factor in response to a long viewing time so that the scaled query feature vector is positive and the feature vector of the document is increased and the rank of the document is increased.

C2
27. (New). The system of claim 1, wherein the modifying means further comprises means for sampling the actions of a plurality of users in order to modify the feature vector for the document.

28. (New). The method of claim 4, wherein the modifying the feature vector further comprises sampling the actions of a plurality of users in order to modify the feature vector for the document.

29(New). The system of claim 7, wherein the modifying means further comprises means for sampling the actions of a plurality of users in order to modify the feature vector for the document.

30. (New). The method of claim 10, wherein the modifying the feature vector further comprises sampling the actions of a plurality of users in order to modify the feature vector for the document.

31 (New). The method of claim 13, wherein sampling user search behavior further comprises sampling the user search behavior of a plurality of users.

32 (New). The system of claim 20, wherein the instructions for sampling user search behavior further comprises instructions for sampling the user search behavior of a plurality of users.
